line 19, delete ~amplifying means 15.~ .

Page 11, line 1, after ~or~ insert --by--;
line 3, change ~Figs.9, 10` to --Fig.9--;
line 4, change ~time~ to --timing--;
line 5, change ~11c~ to --10c--;
line 6, change ~11d~ to --10d-- and after ~in~ insert --the microprocessor subsystem 20 of -- and change ~signals~ to --packages of strobe pulses-- and change ~11e~ to --10e--;
line 7, after ~i.e.~ insert --(an appropriate different quantity of strobe pulses)--;
line 8, after ~beam.~ insert --The quantity of the strobe pulses within the strobe pulse package contains information about particle size. The more strobe pulses within the strobe pulse package, the bigger particle size. The quantity of the identical strobe pulse packages (packages, having the same quantity of strobe pulses within) characterizes the quantity of the identical size particles.--;
line 9, change ~the sensitivity~ to --precision and--;
delete lines 1, 2 of the bottom in their entirety and insert therefor
--The control system 13 also may include the self-diagnostic and calibration means (not shown), electrically connected to microprocessor subsystem 20 and to the analog-digital subsystem 14. The microprocessor subsystem 20 may also process, for example, the signals, containing the information about environmental temperature, humidity, velocity rate, etc.

Page 12, delete line 1 in its entirety;
line 2, change ~12~ to --11--;
line 3, change ~laser beam source)~ to --laser)--;
line 4, after ~optic~ insert --connecting--;
line 7, change ~effective method and device, which provides~ to --effective methods and devices, which provide--;
line 9, change ~of air~ to --of air, gas--;
line 11, change ~an improved~ to --of improved--;
line 17, change ~for improved amplitude~ to --for an improved timing--;
line 18, change ~(~ to --,--.

Page 13, delete lines 1,2 in their entirety;
line 3, change ~unfocused~ to --non-focused-- and after ~in the~ insert --some--;
line 4, delete ~)~;
line 6, after ~detector~ insert --and can not require a power light beam, as it is necessary for the scattered light detecting system--.

In the Claims:

Cancel Claims 2 and 3 in their entirety.
Cancel Claims 1, 4-17 and substitute new Claims 18-31, as follows:

18. A method for counting and measuring a particles illuminated by a light beam and including the steps of:

providing an input of said light beam into a light detecting system, including a chamber, inside which said light beam along a light beam axis intersects said particles along a particle flow axis in an area of a light detection means, which is placed on said light beam axis, and wherein said intersection of said light beam axis with said particle flow axis is occurred on said light beam axis between a light beam source and said light detection means;

detecting an obstructed light beam by said light detection means, and wherein said obstructed light beam has an appropriate intensity and an appropriate duration, determined by an appropriate size of an intersecting particle;

processing detected signals by a processing system.

19. The method of claim 18, wherein each of said detected signals has said appropriate duration, determined by said appropriate size of said intersecting particle.

20. A method for counting and measuring particles, providing a timing processing of detected signals, includes the steps of:

amplifying said detected signals;

conversing the amplified detected signals to digital form pulses with appropriate durations, each of which is determined by an appropriate particle size;

forming strobe pulse packages, strobing said digital form pulses by strobe pulses;

counting a quantity of said strobe pulses within each of said strobe pulse package;

selecting and sorting a plurality of strobe pulse packages by an identical quantity of said strobe pulses within each strobe pulse package of said plurality of said strobe pulse packages;

counting a quantity of an identical strobe pulse packages.

21. The method of claim 20, wherein said quantity of said strobe pulses within said each strobe pulse package contains an information about said appropriate particle size.

22. The method of claim 20, wherein said quantity of said identical strobe pulse packages contains an information about quantity of the identical size particles.

23. A device for counting and measuring particles includes:

a light detecting system, comprising a chamber, a light beam, a particle flow, a tubular particle flow means and a light detection means, wherein an axis of said particle flow intersects an axis of said light beam in an area of said light detection means, which is placed on said light beam axis, and wherein an intersection of said axis of said light beam with said axis of said particle flow is occurred on said light beam axis between a light beam source and said light detection means;

a processing system, comprising an analog-digital subsystem and a control subsystem.

24. The device of claim 23, wherein said analog-digital subsystem comprises an amplifying means and a pulse forming means, and wherein said light detection means is through said amplifying means connected to said pulse forming means.

25. The device of claim 23, wherein said control subsystem comprises a microprocessor subsystem and a terminal means connected to each other by a multiplexed bus.